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THE UNDECIDED STUDENT--HOW DIFFERENT IS HE.

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TO EXAMINE SPECIFICALLY THE DIFFERENCES BETWEEN STUDENTS WHO HAD DECIDED ON A VOCATION AND THOSE WHO HAD NOT, TWO SEPARATE STUDIES WERE MADE, ONE OF COLLEGE FRESHMEN AND THE OTHER OF STUDENTS PLANNING TO ENTER COLLEGE. IN STUDY I, 6,289 MALES AND 6,143 FEMALES FROM 31 INSTITUTIONS WERE TESTED BY THE AMERICAN COLLEGE SURVEY NEAR THE END OF THEIR FRESHMAN YEAR. THEY COULD CHOOSE FROM 89 VOCATIONAL FIELDS OR REMAIN UNDECIDED. THE SURVEY INCLUDED 118 SCALES AND RATINGS TO PROVIDE INFORMATION ON STUDENT INTERESTS, ACHIEVEMENTS, BACKGROUND, ETC. THE MEANS ON ALL VARIABLES WERE COMPUTED FOR 5,838 MEN AND 5,848 WOMEN WHO WERE DECIDED STUDENTS. STUDY II TESTED 59,619 COLLEGE-BOUND STUDENTS WHO HAD TAKEN THE AMERICAN COLLEGE TEST BATTERY AND WHO PLANNED TO OBTAIN A BACHELOR'S DEGREE. THE STUDY FOUND 45,923 DECIDED STUDENTS AND 13,695 UNDECIDED AND FOUND FURTHER THAT THE ONLY DIFFERENCE OF ANY SIZE CONCERNED COLLEGE GOALS--THE UNDECIDED TENDED TO STRESS INTELLECTUAL ABILITIES. SUCH ITEMS AS ACADEMIC APTITUDE, SELF-CONFIDENCE, ASPIRATIONS, INDICATED NO NOTABLE DIFFERENCES. AT THIS AGE, VOCATIONAL INDECISION SHOULD BE EXPECTED. (HH)

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Summary

Students who were undecided about a vocational choice were compared in 2 studies with those who were decided. In the first study comparing decided and undecided college freshmen, only chance differences were found for men and women. The second study demonstrated no differences between decided and undecided college-bound high school students on academic aptitude and high school grades. Undecided students were found to be less vocationally oriented and more intellectually oriented. Reasons for these findings are discussed and some reinterpretations of student indecision are given.

The Undecided Student--How Different Is He?

Leonard L. Baird

American College Testing Program

Many counselors and guidance officers feel that a student's choice of vocation is a sign of his maturity and commitment, and, conversely, a student's inability to make a choice is a sign of immaturity. They have accepted a view similar to Williamson's (1939) that "The causes of vocational choice uncertainty are many, usually consisting of fear and lack of aptitude, fear of displeasing parents and friends, and fear of failure in the chosen occupation. ...Frequently the cause lies in the student's general emotional instability."

The studies exploring this idea are few and fragmentary. Williamson (1937) found that there was no relation between grade point average and the fact that a student had or had not chosen a vocation. Nelson and Nelson (1940) found that the mean scores of students who had no vocational choice were very close to the overall median of all students on two Thurstone attitude scales (Liberalism and Attitudes toward the Church). Miller (1956) found that undecided male college students in her sample emphasized security in occupational values more often than students with an occupational choice. This result was not clearly significant, however. Ziller (1957), extrapolating from nine ROTC students who were undecided, suggested that undecided students may be less willing than other

students to take a risk. Hall (1963) found that students who were undecided or not at all certain about their vocational choice were not different from students who were certain about their vocational choice on the Taylor Manifest Anxiety Scale, a well-studied personality scale. Watley (1965) and Abel (1966) found no relation between academic performance and decision. In a more complicated study, Ashby, Wall, and Osipow (1966) found no differences between "undecided" and "decided" students on first term GPA and on Strong Vocational Interest Blank group scores. They also found no differences between decided and undecided students on background variables (family income, parents' education, etc.), on tests of academic aptitude, and on personality ratings based on Holland's Vocational Preference Inventory. The authors did find that the undecided students had lower high school grades and a higher rating on "dependence" on the Bernreuter Personality Inventory. Munday (1967) also found that undecided students were not differentiated from other students on the SVIB. Sharf (1967) compared decided and undecided students on an experimental information-seeking task. The groups were not different on the amount of information they needed to make a decision, on the time they took to make a decision, nor on the certainty of their choices in the task. The results of this study imply that indecision about a vocational choice is not a sign of general indecisiveness. Sharf also found that decided and undecided students were not different in academic ability as measured

by the ACT Composite.

Although this evidence is sparse, it suggests that the undecided student differs little from other students. However, most of this research was gathered for some other purpose and was not directly concerned with the characteristics of the undecided student. The present investigation specifically sought to examine the differences between students who had decided upon a vocation and those who had not.

Method

Since vocational indecision is common, and probably most important, among college freshmen and students planning to enter college, two studies were carried out based on samples of these groups.

Study One

Sample. The sample consisted of 6,289 male and 6,143 female college freshmen who were administered a comprehensive assessment device, the American College Survey, near the end of their freshmen year, April or May, 1964 (Abe, Holland, Lutz, & Richards, 1965). The students attended 31 institutions including selective liberal arts colleges, state universities, and two-year community colleges. The students made their vocational choices from 89 fields, with the possible alternative of "undecided, don't know." Those who chose this alternative were considered undecided. This method of assessing vocational indecision by self-report probably erred on

the conservative side. A proportion of other students who listed a vocational choice could actually have still been undecided or have reached only a tentative choice. It seems very unlikely that students who reported themselves undecided actually had a strong vocational choice they did not wish to disclose. Apparently, therefore, this method produced a sample of students who were "truly" rather than "partly" undecided.

Measures. The students were tested with a wide variety of measures which have been found to be related to students' educational plans and success in college in a number of other studies. The following measures were included:

1. Vocational Preference Inventory. This inventory, consisting of occupation titles (Holland, 1958), yields 11 scores: Realistic, Intellectual, Social, Conventional, Enterprising, Artistic, Self-Control, Aggressive, Masculine, Status, and an Acquiescence score.

2. Extracurricular Achievement Record. These scales, checklists of extracurricular accomplishments in the high school years, were used earlier by Holland and Nichols (1964b) and included the following areas: art, music, literature, dramatic arts, leadership, and science. The score on each scale is simply the number of accomplishments checked. An Infrequency score designed to identify students who exaggerate their achievements was also computed.

3. Competencies. These scales consist of activities the student claims to do well or competently, such as "I can read blueprints,"

"I can make jewelry," etc. The number of activities checked equals the score. There are 12 scales for such areas as science, government, and social competency.

4. Preconscious Activity Scale. This is a scale of originality (Holland & Baird, in press).

5. Interpersonal Competency Scale. This a priori measure of ability for effective interaction (Holland & Baird, 1967) is based on the ideas of Foote and Cottrell (1955).

6. Range of Experience. The number of experiences encountered by students is measured.

7. Intellectual Resources in the Home. This scale was designed to assess the level of stimulation in the student's home.

8. *Indecision* Scale. Holland and Nichols (1964a) developed this scale from items which distinguished between National Merit Finalists who had made a vocational choice and those who had not.

9. Dogmatism. The degree of dogmatic and rigid thinking is assessed (Rokeach, 1956).

10. Student Orientation Survey. Four a priori scales assess the student orientations implied in Clark and Trow's student typology (1966): Academic, Collegiate, Vocational, and Nonconforming.

11. Potential Achievement Scales. These six scales were constructed to predict extracurricular achievements in the areas of art, music, writing, science, drama, and leadership (Holland & Nichols, 1964b).

12. Self-ratings. Students rated themselves on 31 traits on a 4-point scale (Richards, 1966a).

13. Life Goals. Students rated the importance to them of 35 life goals (Richards, 1966b).

14. Other information. Other information included reports of the students' educational, vocational, and income aspirations, marital status, and satisfaction with college choice.

Thus, the American College Survey included information about students' interests, achievements, competencies, backgrounds, personalities, attitudes, self-descriptions, goals, and aspirations. Altogether there were 118 scales and ratings.

Statistics. The means on all variables were computed for the 5,838 male and 5,848 female students who were decided and for the 451 male and 295 female students who said they were undecided on a vocational choice. Since the large N would have caused very small differences to be significant by the usual t test procedures, 2 arbitrary criteria for differences were used. The first, more stringent criterion was to consider meaningful only those differences in means which were as large as one-third of the overall standard deviation. The second was to consider meaningful those differences as large as one-quarter of the overall standard deviation.

Study Two

This study was carried out for two reasons: (a) To examine differences between decided and undecided students among college-

bound high school students; and (b) to examine the differences in academic aptitude and educational goals.

Sample. The total sample was composed of 59,618 college-bound students who took the ACT battery of tests, and who planned to obtain a bachelor's or higher degree. These students were selected by taking a 10% sample of such students from the total group of students tested on the national test dates between November, 1965, and September, 1966. The 13,695 students who were undecided about a vocation were compared with the 45,923 students who had made a decision.

Measures. 1. ACT Tests. These are tests of academic aptitude which yield scores for four subtests (English, Mathematics, Social Studies, and Natural Sciences) and a Composite score.

2. High School Grade Point Average. This is based on the average of the student's report of his grades in the four areas of the tests. Research by Davidsen (1963) and Richards and Lutz (1967) have shown these reports to be highly similar to grades taken from high school transcripts.

3. Goals in Attending College (Baird, 1967). The students selected their "most important goal in attending college," choosing from 10 possibilities such as "to develop my mind and intellectual abilities" and "to become a cultured person."

Results

Study One

Only one difference was as large as one-third of a standard deviation--undecided males scored lower on the scale designed to measure Trow's concept of Vocational subgroups. Table 1 shows the differences which were as large as one-quarter of a standard deviation. Of 118 comparisons for each sex, 6 differences were this large in the male sample, and 4 were this large in the female sample. While the comparisons suggest that the male student who is undecided is slightly less interested in science than decided students and that both undecided men and women are not "vocationally oriented," the overwhelming conclusion is that there is no real difference between the student who has decided upon a vocation and the student who has not. The difference was less than one-quarter of a standard deviation for 95.0% of the comparisons for men and 96.5% of the comparisons for women. Also, a difference of one-quarter of a standard deviation is not large enough to be useful in individual cases.

Study Two

Table 2 presents, for decided and undecided students, the mean ACT scores, high school grades, and percentages choosing each goal in attending college. Undecided and decided college applicants had exactly the same mean score on the ACT Composite. The

Table 1

Differences as Large as One Quarter of the Overall Standard Deviation between Students who are Decided and Those Who Are Undecided about a Vocation

	Decided		Undecided	
Scale (Men)	Mean	S.D.	Mean	S.D.
Vocational Type	5.02	1.76	4.43	1.81
Academic Type	4.58	2.00	4.01	1.89
SR--Drive to Achieve	2.64	.80	2.39	.79
Goal--Make Technical Contribution to Science	1.64	.87	1.39	.67
Science Potential	17.71	7.01	15.69	6.33
Technical Competency	12.59	4.51	11.32	4.46
Scale (Women)				
Goal--Be Active in Religious Affairs	2.92	.79	2.63	1.11
Homemaking Competency	17.58	4.22	16.21	4.74
Vocational Type	4.44	1.69	3.92	1.93
Interpersonal Competency	11.61	3.27	10.54	3.48

Table 2

Comparison of Undecided Students with Other Groups of Students

	Undecided coll. applic.	Decided coll. applic.
ACT composite		
Mean	20.4	20.4
S.D.	5.1	5.2
High school GPA		
Mean	2.54	2.63
S.D.	.71	.70
Goals in attending college (% choosing)		
Develop mind	46.9	38.9
Vocational training	36.2	50.9
Higher income	9.7	4.9
Other	7.2	5.3
N	13,695	45,923

mean high school grades of the two groups were almost the same. The difference between them was less than one-seventh of a standard deviation. Thus, in agreement with the studies of Williamson (1937), Watley (1965), Abel (1966), and Ashby, Wall, and Osipow (1966), it appears that the undecided student is no different than other students in academic aptitude.

The only differences of any size concern college goals. Undecided students more often than decided students emphasize the college goal of developing their minds and intellectual abilities and choose the goal of vocational or professional training less frequently.

Other research (Baird, 1967) has indicated that students who choose the goal of developing their mind are generally more concerned with intellectual matters than other students and plan to engage in more extracurricular activities.

Discussion

The students included in the first sample were nearing the end of their freshman year in college. There are almost no differences between students who have decided upon a vocation at that point and those who have not. The variables did not differentiate the undecided freshman student from decided freshmen despite including interest test scales, records of achievements, personality scales, vocational and educational aspirations, such self-ratings as "perseverance," "self-confidence," and "practical-mindedness," and such life goals as being "well-off financially," "finding a real purpose in life," and "having executive responsibility for the work of other."

The second study revealed very little difference between undecided students and most other students on measures of academic aptitude. These studies imply that the undecided student's self-concept is not particularly different from that of other students. His life goals and aspirations, and presumably his self-confidence (also among the self-ratings), are no different from those of other students. He has the same capacities as other students for achievement in both academic and nonacademic areas. That these different

kinds of information did not differentiate decided and undecided students seems to cast considerable doubt on many stereotypes of the undecided student. The undecided student may merely have not made up his mind, and that should not be held against him. These results concur with most of the studies of vocational indecision reviewed earlier, in which small, if any, differences were found to distinguish between the decided and undecided student.

Given these negative results, what are we to conclude? The theories of vocational choice have little to say directly about the undecided student. However, Ginzberg (1952) emphasizes that vocational choice is a developmental process with many stages and that compromise is an essential aspect of every choice. Super (1957) also emphasizes the continuous life stages in the choice of an occupation. Tiedeman (1961) described the stages of exploration, crystallization, and choice in vocational development. Holland (1959) described the developmental sources of choice hierarchies. By emphasizing development, these diverse approaches suggest that, as with other developmental processes, one should not expect everyone to reach the same point at the same time.

There are, of course, probable limits to the timing of this developmental outcome. For example, a person who decided to be a mechanical engineer when he was 12 years old and never changed his mind has possibly made a decision too early. In contrast, a 30-year old man who is still undecided about his vocation most

likely has other problems. Between these extremes, however, among high school seniors and freshman and sophomore college students, there are plausible reasons to expect vocational indecision. First, this period of life is defined as one of exploration and tentative choices. A college-bound student is typically not under great pressure to make a vocational decision. Students entering college also have, for the first time, an opportunity to experience the content of fields they may have considered entering. A student may find that work in the engineering lab or in the pre-law curiculum is uninteresting and not what he expected. College also suggests many fields which the student would be unlikely to have considered in high school, e.g., French literature, sociology, or microbiology. Finally, many consequences arise from choosing a particular vocation. The student's subsequent college, graduate school, and vocational futures are, to a fair degree, dependent on this decision. A student should be expected to make this choice very carefully, after considering his own abilities, the options open to him, and his life plans. Thus there are many reasons to expect normal students to be undecided about a vocation. One might even hope that some students would remain undecided for some time.

In a related area, a recent study by Baird (in press) has suggested that indecision among bright students may be due to their capacity to do many things and to the many alternatives open to them

rather than to their confusion about those alternatives. The present finding that the undecided student more often chooses the goal of developing his mind supports the possibility that this may be true of the student of average ability as well. He is more intellectually oriented and less vocationally oriented. Perhaps the undecided student wishes to use the opportunity college provides of exploring himself and the world before he chooses a vocation.

In any case, it is clear that there are few meaningful differences between decided and undecided students. The similarities, in contrast, are enormous. This conclusion is supported by most of the studies reviewed earlier. The implication for counseling and for educational practices is that we should consider undecided college freshmen as no different from other students since, as we have shown, the undecided student is, in fact, not different. There is no evidence to support the notion that most undecided students are maladjusted or abnormal. The students who appear in counseling centers and say they are undecided about a vocation are probably unusual in many ways. Counselors should not generalize from this biased sample to all undecided students. Moreover, even many of these students may not have difficulties other than vocational choice. The freshman whose only problem is a lack of a vocational decision can probably be helped to reach a decision, but he should be told that to be undecided about his career is not only common but may even be beneficial. In any case, he should be told the fact that vocational indecision does not make him different from other students.

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